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### Contemporary Interpretation of an Unusual Navajo Weaving Technique

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## CONTEMPORARY INTERPRETATION OF AN UNUSUAL NAVAJO WEAVING TECHNIQUE

CONNIE R. LIPPERT

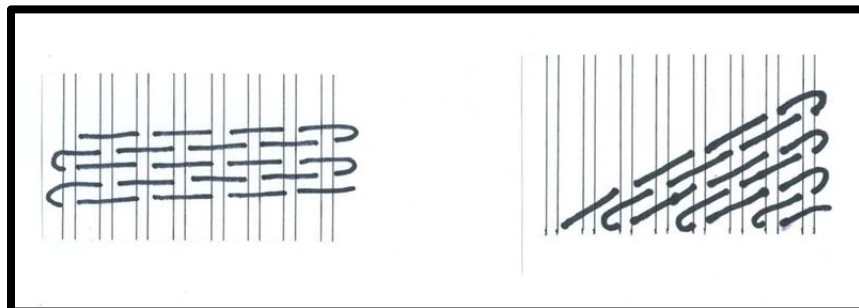
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Wedge weave is a unique weave structure practiced by the Navajo in the late 1800's from about 1870 to 1890. It is unusual, not only for the short length of time it was practiced, but also for its structural difference from traditional Navajo weaving.



*Figure 1. Navajo Diyugi (1880-1890) UCM# 22475 University of Colorado Museum of Natural History.*

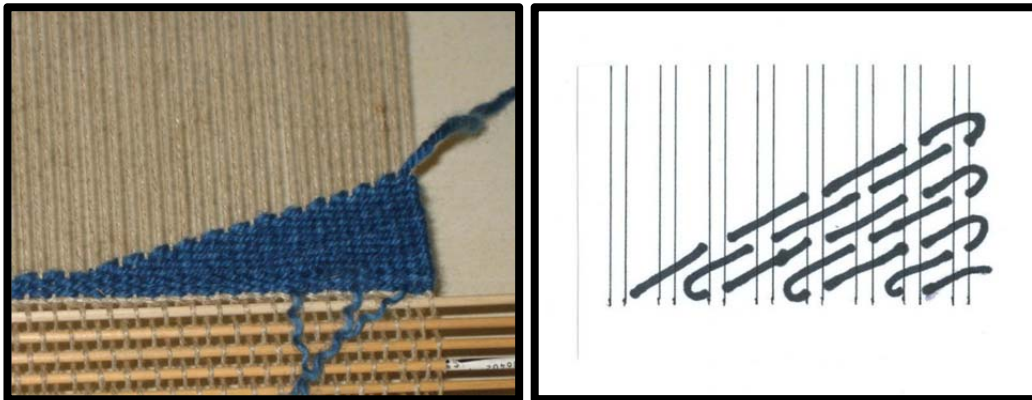
The Navajo Diyugi (1880-1890) (Fig. 1) shows typical wedge weave characteristics of zig zag lines and scalloped edges.



*Figure 2. Plain weave in a horizontal orientation as compared to wedge weave in a diagonal orientation.  
Image by author.*

To explain these characteristics and the structure of wedge weave, consider the usual weave structure of most Navajo textiles (Fig. 2). The warp, or yarn held by the loom, is in a vertical orientation. The weft, or

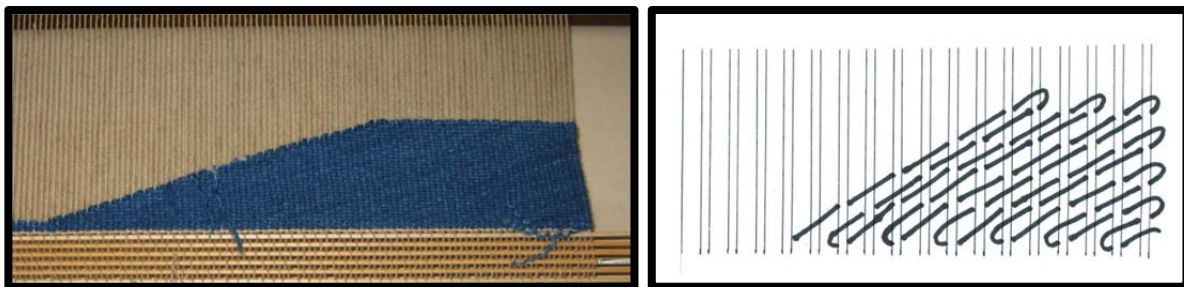
yarn that passes over and under the warp threads, is in a horizontal orientation. In contrast, wedge weave wefts travel on the diagonal. Both structures are weft-faced.



**Figure 3.** Build up of triangle at edge of warp. Weft covers 2 more warps with each pick. Image by author.



**Figure 4.** The height of the triangle is an arbitrary decision made by the weaver. Image by author.



**Figure 5.** The weft covers the same number of warps with each pick. Image by author.

To achieve the diagonal orientation of wedge weave, a triangle is built up on the edge (Fig. 3). The weft starts on the edge and travels over 2 warp yarns, returns back to the edge, then weaves over 4 warp yarns. Each shot or pick of weft increases by 2 warp yarns and returns to the edge on the following shot or pick. The height of the triangle is an arbitrary decision made by the weaver (Fig. 4). When the triangle reaches the height the weaver desires, the weft is no longer increased by 2 warps threads each shot, but travels over the same number of warps each time (Fig. 5). The weft shifts to the left over 2 warps at the bottom (as before), but also at the top so that the number of warps covered is the same for each shot.

The increase of 2 warps with each pass is an arbitrary decision. The increase could be over 1, 2, 3, etc. warp ends. The decision of how many warp ends to increase each time will influence the slope of the triangle and as a result, the slope of the subsequent diagonal. Different yarn weights may influence this decision as well.

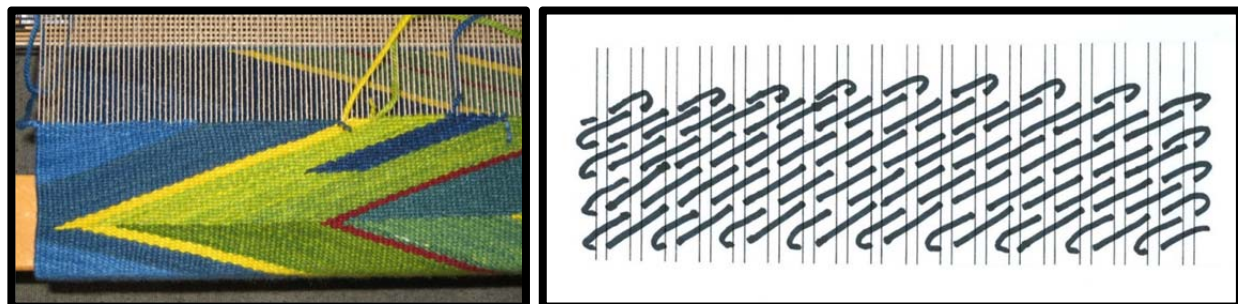




**Figure 6.** The weft covers the last warp on left hand selvage. Image by author.

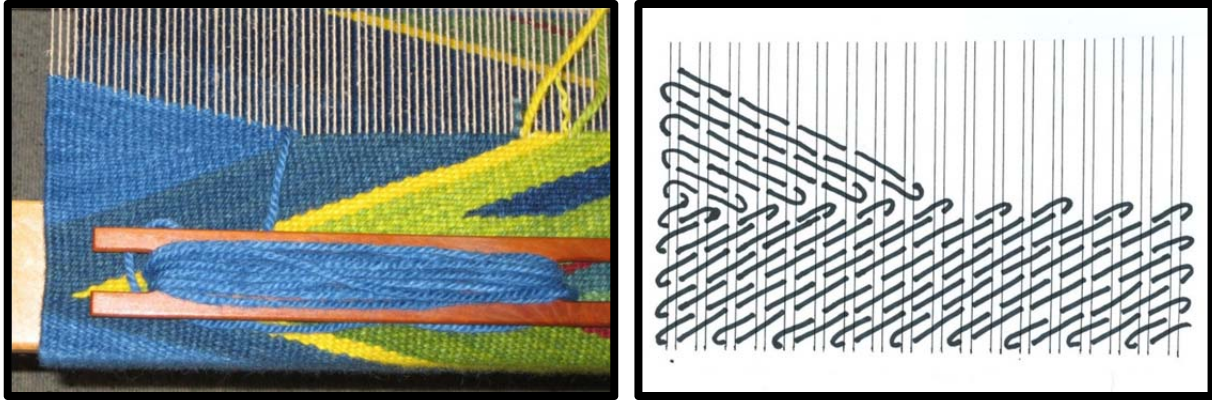


**Figure 7.** Number of warps covered by the weft is decreased by 2 with each pick. Image by author.

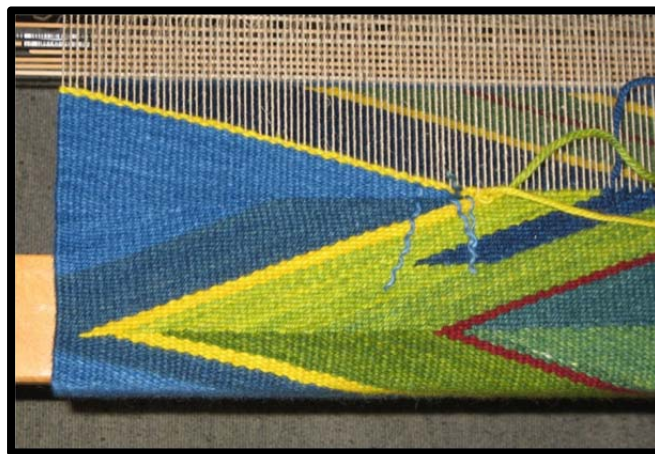


**Figure 8.** Completed wedge woven from right to left. Image by author.

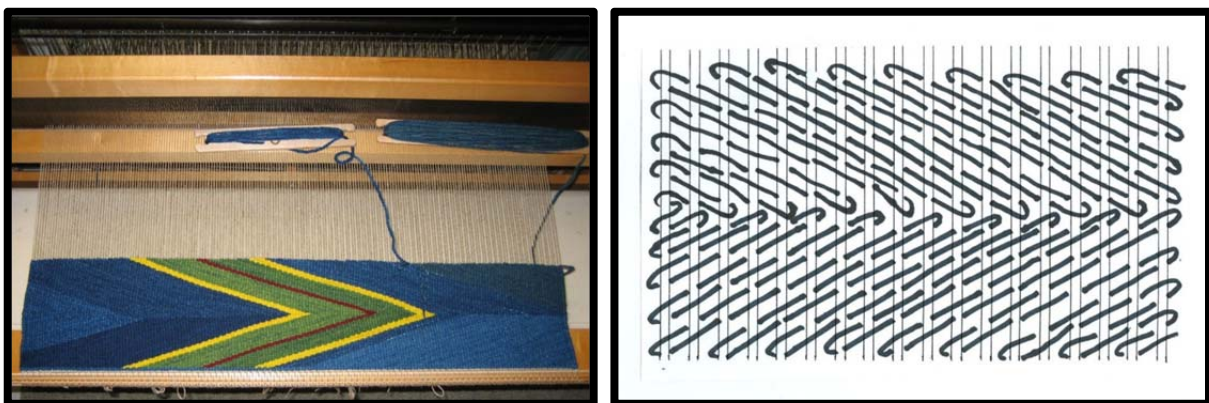
The weaver continues covering the same number of warps with each shot of the weft, shifting over by 2 warps and progressing from the right selvage to the left selvage, until the last warp on the left is reached (Fig. 6). At this point, the number of warps covered by the weft with each shot is decreased by 2 at the top edge (Fig.7). The weft covers 2 less warps each shot until the weft is traveling around the last 2 warps on the left. At this point, a wedge is complete (Fig. 8).



**Figure 9.** Triangle buildup on left selvage. Image by author.



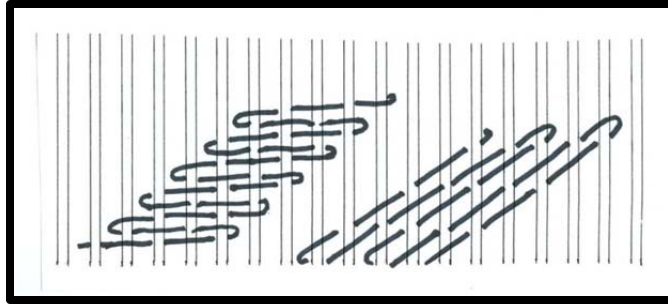
**Figure 10.** Left triangle at maximum desired height. Image by author.



**Figure 11.** Two completed wedges. Bottom wedge woven from right to left. Top wedge woven from left to right. Image by author.

Next, the weaver builds up another triangle in the same manner, but this time beginning on the left side of the warp (Fig. 9). The triangle is built to a certain height by increasing the number of warp threads covered by 2 with each shot (Fig.10). Then, a consistent number of warps are covered, increasing by 2 at the bottom and decreasing by 2 at the top across the entire warp to the right side. When the right warp is reached, the weft travels over 2 less warps each shot until only 2 warps are left and a second wedge is complete (Fig. 11).





**Figure 12.** *Diagonal line woven horizontally as compared to diagonal line woven diagonally. Image by author.*

Joanne Mattera in her book Navajo Weaves for Today's Weaver suggests that since the Navajo use diagonals so extensively in their weaving, wedge weave was used to weave this element in a more efficient manner (Fig. 12). Fewer passes of the weft are required to weave a diagonal with wedge weave than if a diagonal is woven using horizontal passes. Though the diagonals created are similar, they are not comparable, since wedge weave has such a dramatic effect on the structure of the textile.



**Figure 13.** *Navajo "Slave Blanket". UCM# 18088 University of Colorado Museum of Natural History.*

This dramatic effect can be seen in the Navajo Diyugi (1880-1890) (See Fig. 1) which exhibits the characteristic zig zag lines, but also another typical wedge weave characteristic of scalloped edges. Because wedge weave is woven on the diagonal, it forces the warp out of its vertical orientation. As a result, the edges push out to form a scallop. These scalloped edges may explain the short-lived span of wedge weave. In the late 1800's, the making and selling of rugs and blankets was a major source of income for the Navajo. Perfect straight edges have always been the standard of fine Navajo weaving. Straight edges were also important to traders and collectors of Navajo goods. Because of the nature of wedge weave to form scalloped edges, they were seen as inferior and their production was discontinued. In the Navajo "Slave Blanket" (before 1876) (Fig. 13), the scalloped edge is greatly exaggerated.



*Figure 14, left. Cochiti (red line series), 33" X 25". Image by author.*

*Figure 15, right. Cataloochee (red line series), 32" X 24". Image by author.*

Whereas the scalloped edges of wedge weave may have contributed to the demise of its practice, today it is seen as one of its most delightful aspects (Fig. 14, 15). Design in weaving is often limited by the horizontal and vertical nature of the weaving grid. The diagonal orientation of wedge weave offers interesting and diverse design potential. In recent years, there has been a growing interest among weavers in contemporary explorations of wedge weave – not to imitate, but to use this unusual weave structure in new and interesting ways.

## **Bibliography**

Collingwood, Peter. The Techniques of Rug Weaving. New York. Watson-Guption Publications. 1974.

Mattera, Joanne. Navajo Techniques for Today's Weaver. New York. Watson-Guption Publications. London. Pitman Publishing. 1975.

Wheat, Joe Ben. Blanket Weaving in the Southwest. Edited by Ann Lane Hedlund. Tucson. University of Arizona Press. 2003.